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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,326	02/26/2004	Nicolas G. Adiba	SVL920040008US1/3055P	9418

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EXAMINER
ROSE, HELENE ROBERTA

ART UNIT	PAPER NUMBER
2163	

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/789,326	ADIBA, NICOLAS
Office Action Summary	Examiner	Art Unit	
	Helene Rose	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 February 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-37</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-37</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>26 February 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>1/18/05</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

Detailed Action

1.   Claims 1- 37 have been presented for examination

2.   Claims 1-37 have been rejected.

Information Disclosure Statement

3.   The information disclosure statement (IDS) submitted on 1/18/2005,accordingly, the

information disclosure statement has been considered by the examiner.

Claim Objections

4. ᠂ Claims 16 and 33 are objected to because a series of singular dependent claims is

permissible in which a dependent claim refers to a preceding claim which, in turn, refers to

another preceding claim.

5.   Claims which depend from a dependent claim should not be separated by any claim

which does not also depend from said dependent claim. It should be kept in mind that a

dependent claim may refer to any preceding independent claim. In general, applicant's sequence

will not be changed. See MPEP § 608.01(n).

Claim Rejection – 35 USC – 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.   Claims 1-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Holenstein et al.

(US Patent No. 7,003,531/Filing Date of Patent: December 10, 2002).

Claims 1,18 and 35:

Regarding Claims 1,18 and 35 discloses a system/method/computer readable medium

utilizing the same functionality, Holenstein teaches a system/method/computer readable medium

comprising:

at least one active table copy in an asynchronous replication group, wherein the at least

one active table copy comprises a source table copy (column 1, lines 62-67 and column 2, lines

1-7, Holenstein)

a new table copy (column 10, lines 55-58, Holenstein); and

a spill storage area at the new table copy (column 6, lines 26-53, Holenstein), wherein the

spill storage area is created after the data load is initiated (columns 9-10, lines 65-67 and lines 1-

12, Holenstein), wherein changes are applied to the at least one active table copy during the

loading of the data (column 10, lines 55-58, Holenstein), wherein changes for the new table copy

are stored in the spill storage area during the loading of the data (column 12, lines 30-33,

Holenstein), and wherein the changes in the spill storage area are applied to the new table copy

after the loading of the data is done (column 12, lines 34-39, Holenstein).

Claims 2 and 19:

Regarding Claims 2 and 19, Holenstein teaches wherein prior to the creating comprises:

(a1) seeing a start signal at the source table copy (columns 17-18, lines 8-10, Holenstein);

(a2) sending a schema message from the source table copy to the new table copy

(column 19, lines 40-46, Holenstein); and

(a3) changing a state for a new table copy subscription at the source table copy from

inactive to loading (column 2, lines 8-17 and column 22, lines 47-53, Holenstein,).

Claims 3 and 20:

Regarding Claims 3 and 20, Holenstein teaches wherein the creating comprises:

(a1) receiving a schema message at the new table copy (column 11, lines 33-43,

Holenstein);

(a2) invoking a load utility at the new table copy, if the data load is an internal data load

(column 16, lines 4-6, Holenstein); and

(a3) creating the spill storage area (Refer to claim 1, wherein this limitation has already

been address, Holenstein).

Claims 4 and 21:

Regarding Claims 4 and 21, Holenstein teaches wherein the creating (a) further

comprises:

(a4) changing a state of a new table copy subscription at the new table copy from

"inactive" to "internal loading", if the data load is an internal data load (Figure 4, all features,

Holenstein); and

(a5) changing the state of the new table copy subscription at the new table copy from

"inactive" to "external loading", if the data load is an external data load (Figure 4, all features,

Holenstein).

Claims 5 and 22:

Regarding Claims 5 and 22, Holenstein teaches wherein the loading comprises:

(b1) loading the data from the source table copy to the new table copy (Refer to claim 1,

wherein this limitation has already been address, Holenstein);

(b2) applying the changes for the active table copies to the active table copies during the

data load column 13, lines 29-38 and column 16, lines 16-21, Holenstein);

(b3) storing the changes for the new table copy in the spill storage area during the data

load (column 13, lines 29-38, Holenstein); and

(b4) sending a load done message from the new table copy to the source table copy after

the data load is done, if the data load is an internal load (column 13, lines 48-52, Holenstein)-.

Claims 6 and 23:

Regarding Claims 6 and 23, Holenstein teaches wherein the loading further comprises:

(b5) receiving the load done message at the source table copy (column 12, lines 34-38,

Holenstein);

(b6) sending the load done message back to the new table copy (column 26, lines 46-49,

Holenstein); and

(b7) changing a state of a new table copy subscription at the source table copy from

"loading" to "active" (column 16, 48-57, Holenstein).

Claims 7 and 24:

Regarding Claims 7 and 24, Holenstein teaches wherein the loading further comprises:

(b8) tagging the changes for the new table copy that occur before the load done message is

received at the source table copy (column 19, lines 13-19, Holenstein).

Claims 8 and 25:

Regarding Claims 8 and 25, Holenstein teaches wherein the applying comprises:

(c1) receiving a load done message at the new table copy (Refer to claim 6, wherein this limitation is substantially the same, Holenstein);

(c2) starting a spill agent thread at the new table copy (column 14, lines 22-28, Holenstein);

(c3) changing a state of a new table copy subscription at the new table copy to "load finishing" (column 9, lines 23-30 and column 16, lines 55-57, Holenstein); and

(c4) processing the changes stored in the at least one spill queue by the spill agent thread (column 14, lines 19-21, Holenstein).

Claims 9 and 26:

Regarding Claims 9 and 26 Holenstein teaches wherein for an internal data load, a thread used to load the data is reused as the spill agent thread (column 16, lines 34-37, Holenstein).

Claims 10 and 27:

Regarding Claims 10 and 27, Holenstein teaches wherein the processing comprises:

(c4i) re-executing the changes to a same row at the new table copy in a same order as at the source table copy (column 5, lines 43-51, Holenstein);

(c4ii) identifying and resolving dependencies between the changes to the same row (column 5,lines 37-41, Holenstein); and

(c4iii)detecting and resolving conflicts between the changes to the same row (column 32, lines 59-64, Holenstein)

Claims 11 and 28:

Regarding Claims 11 and 28, Holenstein teaches wherein the re-executing comprises:

(c4iA) deleting the re-executed change from the spill storage area in a same transaction as

the re-execution (column 17, lines 34-39, Holenstein).

Claims 12 and 29:

Regarding Claims 12 and 29, Holenstein teaches, wherein the deleting (c4iA) is

performed with a two-phase commit protocol (column 17, lines 24-27 and lines 58-62,

Holenstein).

Claims 13 and 30:

Regarding Claims 13 and 30, Holenstein teaches wherein the deleting comprises:

(c4iA(I)) storing a message identifier for the re-executed change at the new table copy,

wherein upon a restart of the data load at the new table copy (column 19, lines 38-39,

Holenstein), only changes from the spill storage area without a corresponding stored message

identifier are applied to the new table copy (Refer to claim 1, wherein this limitation is

substantially the same, Holenstein).

Claims 14 and 31:

Regarding Claims 14 and 31, Holenstein teaches wherein the detecting and resolving

comprises:

(c4iiiA) ignoring a change to a row not found in the new table copy when re-executing a

conflicting row delete (column 24, lines 37-40, Holenstein);

(c4iiiB) ignoring a change to a row not found in the new table copy when re-executing a

conflicting row update (column 24, lines 37-40, Holenstein);

(c4iiiC) ignoring a change to a row in the new table copy when re-executing a conflicting

row insert (column 25, lines 8-9, Holenstein); and

(c4iiiD) ignoring a change to an old row not found or a new row found in the new table copy when re-executing a conflicting key update (column 28, lines 15-24, Holenstein).

Claims 15 and 32:

Regarding Claims 15 and 32, Holenstein teaches wherein the detecting and resolving:

(c4iiiA) ignoring a missing row in the new table copy when re-executing a row delete (column 12, lines 55-57,Holenstein);

(c4iiiB) transforming a re-execution of an update into a row insert when a row in the new table copy is missing (column 6, lines 49-52, Holenstein); and

(c4iiiC) transforming a re-execution of an insert into an update when a row in the new table copy already exists (column 2, lines 62-67, Holenstein).

Claims 16 and 33:

Regarding Claims 16 and 33, Holenstein teaches wherein the removing comprises:

(d1) sending a spill queue empty message by a spill agent thread at the new table copy when the spill agent thread reaches a last change on the spill storage area (column 20, lines 52-59, Holenstein);

(d2) determining by a browser thread at the new table copy that an oldest running transaction at the new table copy is older than a most recent transaction when a load done message was received at the source table copy (column 14, lines 20-21, Holenstein);

(d3) sending a spill final message from the browser thread to the spill agent thread (column 16, lines 34-37, Holenstein); and

(d4) deleting the spill storage area when emptied by the spill agent thread (column 22, lines 65-67, Holenstein).

<u>Claims 17 and 34</u>:

Regarding Claims 17 and 34, Holenstein teaches wherein the removing further

comprises:

(d5) sending a spill done message by the spill agent thread to the browser thread (column

29, lines 25-31, Holenstein);

(d6) terminating the spill agent thread (column 9, lines 20-23, Holenstein);

(d7) receiving the spill done message by the browser thread (refer to claim 8, wherein this

limitation is substantially the same, Holenstein); and

(d8) changing a state of a new table copy subscription at the new table copy to "active"

(Refer to claim 6, wherein this limitation is substantially the same, Holenstein).

<u>Claims 36 and 37</u>:

Regarding Claims 36 and 37, Holenstein teaches removing the spill storage area after the

changes in the spill storage area have been applied to the new table copy (column 17, lines 9-13

and lines 45-49, Holenstein).

Prior Art of Record

1.   Holenstein et al.   (US Patent No. 7,003,531)

Point of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Rose whose telephone number is (571) 272-0749. The examiner can normally be reached on 8:00am - 4:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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August 6, 2007

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